CLAIMS:

1. A method for a cardiac analysis, the method comprising steps for acquiring an ECG-signal, detecting at least one wave of the ECG-signal and calculating parameter values of said wave, **characterized** in that, said wave is a P-wave, whereupon the cardiac analysis is focused to dynamic changes of the configuration of the P-wave, wherein substantially every detected P-wave is compared to a reference P-wave in defined time period.

2. The method according to claim 1, **characterized** in that, the cardiac analysis is focused also to dynamic changes of the PQ-segment.

3. The method according to claim 1 or 2, **characterized** in that the ECG-signal is in the form of a vectorcardiogram.

4. The method according to claim 1 or 2 or 3, **characterized** in that a beat between two R-peaks is examined, whereupon said beat is classified into groups depending on whether the beat is having a duration between the predetermined time limit or the beat is having a duration under the predetermined time limit, whereupon both said beats are analyzed separately.

5. The method according to one of the claims 1 – 4, **characterized** in that the P-wave is detected by a template method.

6. The method according to one of the claims 1 – 4, **characterized** in that the P-wave is detected by a pattern recognition method.

7. The method according to one of the claims 1 – 6, **characterized** in that the detected P-wave is stored in X, Y, Z leads.

8. The method according to one of the claims 1 – 7, **characterized** in that the detected P-wave is averaged in the predetermined time interval.

9. The method according to claim 8, **characterized** in that at least one averaged P-wave is used as an initial reference P-wave, where the upcoming averaged P-waves are compared to.

10. The method according to one of the claims 1 – 9, **characterized** in that at least one loop of the P-wave is detected.

11. The method according to one of the claims 1 – 10, **characterized** in that the parameters of the P-wave in one-dimensional diagram are one or more of the following: the vector area (P-A), vector change area (PC-A), P-area duplicity (P-AD), PQ-vector magnitude (PQ-VM), PQ-area (PQ-A) and PQ change area (PQC-A).

12. The method according to one of the claims 1 – 11, **characterized** in that the parameters of the P-wave in two-dimensional diagram are one or more of the following: the vector loop area (P-LA), vector change loop area (PC-LA) and P loop area duplicity (P-LAD).

13. The method according to one of the claims 1 – 12, **characterized** in that the parameters of the P-wave in three-dimensional diagram are one or more of the following: the vector loop area (P3-LA), the vector change loop area (P3C-LA), the angles of the azimun (P-Az, PQ-Az), the elevation (P-El, PQ-El), change vector (PC-VA, PQRSC-VA, PQC-VA), the P-QRS vector (PQRS-VA) as well as the vector magnitude (P-VM, PQ3-VM), change vector magnitude (PC-VM, PQC3-VM).

14. The method according to one of the claims 1 – 13, **characterized** in that the parameters of the P-wave in magnitude environment are one or more of the following: the vector magnitude area (P-MA, PQ-MA), the vector change magnitude area difference (PC-MA, PQC-MA) and the vector magnitude (PQ-MVM).

15. The method according to one of the claims 1 – 14, **characterized** in that the method comprises also the calculations of one or more of the following: the PQ-time, P-wave duration (P-dur), the length of the P-wave (P-VLL), the velocity of the P-wave vector loop (P-VLV).

16. The method according to one of the claims 1 – 15, **characterized** in that the ECG-signal is acquired from a Frank system or a 12-lead ECG-arrangement.

17. The method according to one of the claims 1 – 16, **characterized** in that the ECG-signal is acquired from a data storage unit that is independent of this invention and commercially available.

18. The method according to one of the claims 1 – 17, **characterized** in that results of the parameters are displayed in a trend curve.

19. A cardiac analysis system comprising first means for acquiring the ECG-signal, second means for detecting at least one wave from the ECG-signal and third means for calculating parameter values of said wave, **characterized** in that, said wave is a P-wave, whereupon the cardiac analysis system is adapted to focus to dynamic changes of the configuration of the P-wave, wherein said system additionally comprises means for comparing substantially every detected P-wave to a reference P-wave in defined time period.

20. The system according to claim 19, **characterized** in that, the system is further adapted to focus to dynamic changes of the PQ-segment.

21. The system according to claim 19 or 20, **characterized** in that the ECG-signal is in form of a vectorcardiogram.

22. The system according to claim 19 or 20 or 21, **characterized** in that the system is also adapted to measure a duration of the beat between two R-peaks, wherein the system is also configured to compare the beat to the predetermined time limit and classified the beat into the one of two groups depending on whether the duration is between the predetermined time limit or under the predetermined time limit, wherein the system is also configured to analyze both groups separately.

23. The system according to one of the claims 19 – 22, **characterized** in that the system is adapted to detect the P-wave by a template method.

24. The system according to one of the claims 19 – 22, **characterized** in that the system is adapted to detect the P-wave by a pattern recognition method.

25. The system according to one of the claims 19 – 24, **characterized** in that the system is adapted to store the detected P-wave in X, Y, Z leads

26. The system according to one of the claims 19 – 25, **characterized** in that the system is adapted to average the detected P-wave in the predetermined time interval.

27. The system according to one of the claims 19 – 26, **characterized** in that the system is adapted to use the first averaged P-wave as a reference P-wave and to compare the upcoming averaged P-waves to it.

28. The system according to one of the claims 19 – 27, **characterized** in that the system is adapted to detect at least one loop of the P-wave.

29. The system according to one of the claims 19 – 28, **characterized** in that, the system is adapted to acquire the ECG-data from a Frank system or a 12-lead ECG-arrangement.

30. The system according to one of the claims 19 – 29, **characterized** in that the system is adapted to acquire the ECG-signal from a data storage unit that is independent of this invention and commercially available.

31. The system according to one of the claims 19 – 30, **characterized** in that the system is adapted to display results of the parameters calculated in trend curve.

32. A computer program product, comprising a computer readable storage medium on which is stored a computer program code for a cardiac analysis, which computer program code comprises first computer instructions configured to acquire the ECG-signal, second computer instructions configured to detect at least one wave from the ECG-signal and third computer instructions configured to calculate parameter values of said wave, **characterized** in that, said wave is P-wave, whereupon the computer program code has instructions for focusing to the dynamic changes of the configuration of said P-wave, wherein said computer program code additionally comprises computer instructions configured to compare substantially every detected P-wave to a reference P-wave in defined time period.

33. The computer program product according to claim 32, **characterized** in that, the cardiac analysis is focused also to dynamic changes of the PQ-segment.